



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/334,375	06/16/1999	MICHAEL J. SIWINSKI	79496WSS	5263

1333 7590 09/08/2004

PATENT LEGAL STAFF
EASTMAN KODAK COMPANY
343 STATE STREET
ROCHESTER, NY 14650-2201

EXAMINER

MOUETTET, BLAISE L

ART UNIT	PAPER NUMBER
----------	--------------

2853

DATE MAILED: 09/08/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/334,375

Applicant(s)

SIWINSKI ET AL.

Examiner

Blaise L Mouttet

Art Unit

2853

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 June 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3, 6, 8-21 and 26-54 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 6, 8-18, 26-36, 50, 51 and 54 is/are allowed.
- 6) ☒ Claim(s) 1-3, 19-21, 37-48 and 52 is/are rejected.
- 7) ☒ Claim(s) 49 and 53 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 16 June 1999 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

The decision by the Board of Patent Appeals and Interferences filed June 16, 2004 is acknowledged. Prosecution is reopened based upon newly cited reference to Walker US Patent 6,312,106.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

1. Claims 1-3, 19-21, 37, 39, 41, 46 and 47 are rejected under 35 U.S.C. 102(e) as being anticipated by Walker US 6,312,106.

Walker discloses, regarding claim 1, a printer (10) of the type which selectively deposits a color ink onto a receiver to form an image on the receiver (column 3, lines 36-43, column 4, lines 17-21), the printer being adapted to sense and update data uniquely associated with an ink containing consumable (18) loaded into the printer (figure 3, column 3, lines 44-62), comprising:

a transceiver (42) for transmitting a first electromagnetic field (72) (column 7, line 56 – column 8, line 6) and for sensing a second electromagnetic field (from transponder 38 as indicated in column 7, lines 1-20), the first electromagnetic field containing data

Art Unit: 2853

for writing into a memory (54) associated with the ink containing consumable (18) (column 5, lines 37-40);

a transponder (38) coupled to the ink containing consumable (18), the transponder adapted to receive the first electromagnetic field and generate the second electromagnetic field in response to the first electromagnetic field received thereby (figure 3, column 7, lines 1-20), the transponder (38) adapted to receive energy from the first electromagnetic field that is generated by the transceiver and the energy comprising the only energy for powering the transponder (column 7, lines 25-39) and the transponder (38) being adapted to read data from the memory (54) and write updated data to the memory (54) in accordance with an instruction code (command information) from the transceiver (42) in the first electromagnetic field (column 7, lines 7-20); and

the memory (54) associated with the ink containing consumable (14), the memory being coupled to said transponder (38) (figure 3, column 4, lines 47-50), the memory having data stored therein uniquely associated with the ink containing consumable (14) (column 5, line 61 – column 6, line 7), whereby the second electromagnetic field carries the data stored in the memory while the second electromagnetic field is generated, the second electromagnetic field being characteristic of the data stored in the memory (as understood in view of the modulation scheme of column 7, lines 48-55).

Regarding claims 2 and 3, the transceiver (42) and transponder (38) both employ radio frequency communication in the information transfer (column 7, lines 48-55).

Walker discloses, regarding claim 19, in a printer (10) of the type which selectively deposits ink onto a receiver to form an image on the receiver (column 3, lines 36-43, column 4, lines 17-21), a method for sensing data uniquely associated with an ink consumable (18) loaded into the printer (figure 3, column 3, lines 44-62), comprising the steps of:

operating a transceiver (42) to transmit a first electromagnetic field, the first electromagnetic field including a code (the command information) providing a command to read or write data (column 7, lines 7-20); and

providing a transponder (38) associated with the ink consumable (18), the transponder receiving the first electromagnetic field and generating a second electromagnetic field in response to the code in the first electromagnetic field providing a command to read data from memory (54), the second electromagnetic field carrying information relative to data stored in the memory (the retrieval operation as explained in column 7, lines 17-20) the memory (54) being coupled to the transponder (38) and having the data stored therein and uniquely associated with the ink consumable (18) (column 4, lines 47-50), and the transponder in response to a code providing a command to write data provides a signal to the memory (54) to apply information from the first electromagnetic field into the memory (54) (the storing operation as explained in column 7, lines 14-16).

Regarding claims 20 and 21, the transceiver (42) and transponder (38) both employ radio frequency communication in the information transfer (column 7, lines 48-55).

Art Unit: 2853

Regarding claim 37, the transponder receives energy from the first electromagnetic field as the only energy for powering the transducer (column 7, lines 25-39).

Regarding claim 39, the transceiver communicates with the transponder without making contact (column 9, lines 8-12).

Regarding claim 41, the transceiver senses the second electromagnetic field and extracts the data content for subsequent processing in operating the printer (column 7, lines 17-20).

Regarding claims 46 and 47, the memory (54) stores calibration (usage information) and sensitometric (drop count, ink color/type/age information) data relative to the consumable (column 5, line 66 – column 6, line 7).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 38, 40, 42-45, 48 and 52 are rejected under 35 U.S.C. 103(a) as being unpatentable over Walker US 6,312,106 in view of Bullock et al. US 5,699,091.

Walker discloses the limitations of claims 19 and 37 as explained in the 35 USC 102 rejection above.

Walker discloses, regarding claims 38, 42-45 and 52, storing data in the memory related to ink usage (ink drop count) and the type of consumable (ink type/color) (column 5, line 66 – column 6, line 7).

Walker discloses, regarding claim 43, an ink container (18) including an ink consumable for use in a printer including the transponder (38) and memory (54) as previously described in relation to claim 19, wherein the memory (54) is coupled to the transponder (38) that includes data unique to the consumable, the transponder receiving energy from the electromagnetic field generated by the transceiver (42) the energy comprising the only energy for powering the transponder (column 7, lines 25-39) and a code is transmitted indicating a read/write command to read or write data to the memory (column 7, lines 11-20).

Walker fails to disclose, regarding claims 38 and 52, a sensing mechanism to indicate the amount of consumable used which is stored in the memory and that the current level of ink is written to the memory.

Walker fails to disclose, regarding claim 40, that the memory is a non-volatile semiconductor memory.

Walker fails to disclose, regarding claim 42 and 43, that the ink usage data is written/updated to the memory.

Walker fails to disclose, regarding claims 44, 45 and 48, that a control logic determines the type of consumable loaded in the printer and a manufacturing date of the consumable and if a print job is not compatible with the consumable printing is disabled.

Walker cites Bullock et al. '091 as providing desirable features of memory devices for ink consumables in printers (column 1, lines 39-65 of Walker).

Bullock et al. discloses reading and updating a non-volatile semiconductor memory placed on an ink consumable (column 3, line 66 –column 4, line 32 of Bullock et al.) in which ink usage is sensed by a sensing mechanism (column 7, lines 12-22 of Bullock et al.), the current ink level of ink is sent/updated to the memory (column 8, lines 40-43 of Bullock et al.), the type of consumable and manufacture date (date code of ink supply) is determined by control logic (column 7, lines 4-11, column 7, lines 24-32 of Bullock et al.) and if the consumable is not compatible with a print job printing is disabled (figure 7).

It would have been obvious for a person of ordinary skill in the art at the time of the invention to use a non-volatile semiconductor memory as taught by Bullock et al. as the memory of Walker and to use the sensing mechanism and control logic of Bullock et al. to update ink level data in the memory and determine the consumable type, manufacture date and whether the consumable is compatible with a print job.

The motivation for doing so would have been to automatically update printing component parameters which is taught to be desirable in column 1, lines 39-65 of Walker.

Allowable Subject Matter

3. Claims 6, 8-18, 26-36, 50, 51 and 54 are allowable based upon the decision of the Board of Patent Appeals and Interferences filed June 16, 2004 and as indicated below.

Claims 49 and 53 are objected to as dependent on a rejected claim but would be allowable if rewritten in independent form including all of the limitations of the base claim and intervening claims.

Regarding claim 6, the transponder coupled to a cleaning fluid consumable loaded into the printer, in combination as currently claimed, is not shown or rendered obvious by the prior art of record.

Regarding claims 8-18, the transceiver adapted to alternately communicate with the first and second transponders respectively coupled to the first and second consumables used by the printer, in combination as currently claimed, is not shown or rendered obvious by the prior art of record. As shown and discussed in relation to figure 3 of Walker '106 each transponder (38) has its own transceiver (42) rather than a single transceiver communicating with plural transponders.

Regarding claims 26-36, the transceiver polling the respective transponders respectively coupled to the consumables loaded into the printer, in combination as currently claimed, is not shown or rendered obvious by the prior art of record. As shown and discussed in relation to figure 3 of Walker '106 each transponder (38) has its own transceiver (42) rather than a single transceiver communicating with plural transponders.

Art Unit: 2853

Regarding claim 49, the specification of the ink consumable loaded into the printer and provided with the transponder being a container for storing a waste material, in combination as currently claimed, is not shown or rendered obvious by the prior art of record.

Regarding claims 50 and 51, providing the transponder associated with the waste material containing container loaded into the printer, in combination as currently claimed, is not shown or rendered obvious by the prior art of record.

Regarding claim 53, blocking the transceiver from overwriting certain stored data in the memory coupled to the transponder associated with the ink consumable loaded into the printer, in combination as currently claimed, is not shown or rendered obvious by the prior art of record.

Regarding claim 54, the transponder coupled to a sheet-like member that is part of a stack of discrete receiver sheets loaded in the printer, in combination as currently claimed, is not shown or rendered obvious by the prior art of record.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner Blaise Mouttet who may be reached at

Art Unit: 2853


telephone number (571) 272-2150. The examiner can normally be reached on Monday-Friday from 8:30 a.m. to 5:00 p.m.

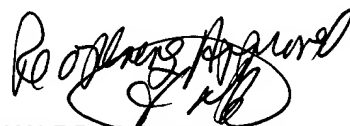
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephen Meier, Art Unit 2853, can be reached at (571) 272-2149. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

Blaise Mouttet July 8, 2004

Bm 7/8/2004


Stephen D. Meier
Primary Examiner


HOWARD GOLDBERG
APPROVED
TECHNOLOGY CENTER 2800